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ABSTRACT

A study was conducted at Northern Virginia Community College (NVCC) to determine the relationship between student educational objectives and retention/attrition rates. The study followed 4,502 students who came to the college for the first time in winter 1985 for five quarters, through winter 1986. The students were asked to indicate their educational objectives and their estimate of how long it would take them to achieve their objectives on their application form. Of the 2,617 students who provided information on their objectives and estimated length of stay, 416 expected to enroll for one quarter and did so (group A), 364 expected to enroll for nine or more quarters and enrolled for only one (group B), 239 students expected to enroll for fewer quarters than their actual enrollment (group C), and 255 expected to enroll for five quarters or more and had enrolled for at least five quarters (group D). Study findings included the following: (1) group A came to NVCC mostly for job advancement (36.1%) and self-improvement (28.6%), had the highest percent of students holding a college degree prior to NVCC enrollment (43.8%), and generally performed well academically at NVCC, with 82.1% of the group earning a grade point average (GPA) of 2.0 or higher; (2) among group B students, the most common objectives were job advancement (30.7%) and career exploration (25.8%), 81.3% had no prior college degree, and 40% achieved less than a 2.0 GPA; (3) students in group C came to NVCC to prepare for transfer (29.3%) or for self-improvement (25.5%), 40% held a college degree, and 86.4% had a GPA of 2.0 or higher; and (4) 51.8% of the group D students came to NVCC to transfer, 82.3% had no prior degree, 33.7% were under 21 years of age, and 92% earned a GPA of 2.0 or higher. (EJV)

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RETENTION/ATTRITION AND STUDENT EDUCATIONAL OBJECTIVES NVCC WINTER 1985 FIRST-TIMERS

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No. RB 85/86-07

May 16, 1986

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INTRODUCTION

The literature on college student retention/attrition is rich with research done on variables affecting student retention/attrition, especially at four-year colleges and universities. Studies by Pascarella and Chapman (1983), Terenzini and Pascarella (1978), etc., point out that a student's college experience determines his/her retention more so than the characteristics he/she brings to the college. Closer to home, the NVCC retention study, an on-going project by the Office of Institutional Research is a longitudinal study of first-time NVCC students, relating retention/attrition to student demographics and academic performance. To this date, little retention research has been done, especially at community colleges, attempting to link retention/attrition to educational objectives and the length of time students expect to spend at a college to achieve their educational objectives.

Without educational objective data, an institution would not know if a "leaver" is attrition or if a student "leaving" the college is a natural result of an objective having been achieved. College students are expected to set their educational objectives when they apply for admissions to a college. It is further expected that they plan for the length of time it would take them to achieve their educational objectives. If students leave the college after their educational objectives are met, they should not be considered attrition. If they leave the college before achieving their objectives or if they stop out sooner than planned, they should be considered attrition. It is especially important to link students' objectives and their attendance when determining the retention rate at a comprehensive community college.

NVCC began to collect data on student educational objectives in the Winter Quarter of 1985. Students are asked to reveal their educational objectives on the new application form, when they apply for NVCC admissions. Students are also requested to indicate the estimated length of time in quarters it will take them to achieve their educational objectives.

This research brief examines NVCC first-time students who came to the College in Winter 1985, following them up for five quarters to the Winter quarter of 1986, looking at their educational objectives and length of time they planned to enroll at the college to complete their objectives. It also looks at student retention patterns and identifies the characteristics of students in various retention patterns.

METHODOLOGY

With the new application form, in Winter 1985, the College began to collect data on student educational objectives and intended length of attendance to achieve objectives. The five alternative educational objectives are:

1. For later transfer to a four year college or university.
2. To obtain a job.
3. For advancement in present job.
4. To explore career possibilities.
5. For self-improvement not job related.

Intended length of enrollment ranges from one to nine or more quarters.

This study captured all students enrolled at the College for the first time in Winter 1985 and traced them for five quarters, through Winter 1986. Attempts were made to identify student groups according to their retention patterns. Attempts were also made to compare and contrast group characteristics.

Variables such as educational objectives/goals, length of attendance, degrees held prior to NVCC enrollment, academic performance measured by first quarter grade point averages, and other demographics were analyzed in this study.

RESULTS

In Winter 1985, there were 4,502 students enrolled at the College for the first time. Forty-two percent of these students did not reveal an educational objective or did not reveal the number of quarters they planned to enroll at the College to achieve their objective.

The characteristics of each group are presented in Table 1.

Table 1
Characteristics of NVCC First-Timers by Groups*
- Winter 1985 -

	Group 1 (1,885) %		Group 2 (2,617) %	
Prior College Degree				
No Degree		86.40		68.00
Some Degree		13.60		32.00
Of Which:				
Assoc.	15.60		12.50	
Bachelor's	59.50		60.20	
Master's	17.50		21.50	
Prof. or Doctorate	7.40		5.70	
Race				
White		75.40		81.80
Minority		24.60		18.20
Of Which:				
Asian	27.40		22.50	
Black	44.80		48.50	
Hispanic	19.00		18.70	
Age Group+				
< 21		26.50		24.20
21 - 24		15.50		15.50
25 - 29		20.80		22.10
30 - 44		29.30		28.30
45+		8.30		9.80
Full-Time Status++		13.60		12.90
First Quarter GPA**				
≥ 2.00		78.87		79.65

* Groups are:
Group 1 = First-timers who did not indicate objective/length of stay
Group 2 = First-timers who indicated objective/length of stay
\+ at admission
++ first quarter
** Excluding those not getting letter grades (A-F) in the course.

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As depicted in Table 1, Group 2 had more students holding some college degree prior to NVCC enrollment, fewer minority students, fewer full-time students, and relatively more students achieving a GPA of 2.00 or above, than Group 1. Why the students in Group 1 did not answer the questions on the application form dealing with objectives is not readily apparent from the demographic data.

Further analysis concentrated on Group 2, i.e., those first-timers who revealed an educational objective/length of time of NVCC attendance. The following Table presents these 2,617 first-timers and their attendance by quarter of enrollment compared with their intended length of stay at the College. Regardless of the number of their intended quarters of enrollment, half of these 2,617 students were enrolled at the College for only one quarter. Cumulatively, almost three-fourths of these students had only two quarters of NVCC attendance.

Table 2

STUDENT GROUPS BY INTENDED LENGTH OF ENROLLMENT AND BY QUARTER OF ATTENDANCE

QUARTER OF ATTENDANCE	INTENDED LENGTH OF ENROLLMENT									
	1	2	3	4	5	6	7	8	9	Total
1	416	207	97	111	22	49	10	34	364	1310
2	83	120	65	55	18	44	5	25	206	621
3	32	39	32	33	11	26	4	17	125	319
4	8	24	24	25	4	16	6	12	115	234
5	9	11	3	6	2	18	6	5	73	133
Total	548	401	221	230	57	153	31	93	883	2617

416 GROUP L & L

239 GROUP L & H

364 GROUP H & L

255 GROUP H & H

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The analysis focuses on the following four groups:

- Group A: "Low Expectancy and Low Attendance" (L & L); those who expected to enroll for one quarter and did enroll for one quarter, made up 16 percent (or 416 students) of the 2,617 students in the study.

- Group B: "High Expectancy and Low Attendance" (H & L); those expected to enroll for 9+ quarters and enrolled for only one quarter, made up 14 percent (364 students) of the students under scrutiny.

- Group C: "Low Expectancy and High Attendance" (L & H); those expected to enroll for fewer quarters than their actual enrollment, made up nine percent (239 students) of the student population in the analysis.

- Group D: "High Expectancy and High Attendance" (H & H); those expected to enroll for five quarters or more and have enrolled at least five quarters, made up ten percent (255 students) of the total 2,617 students.

Their group characteristics are presented in Table 3.

Table 3
Group Characteristics of Winter 85 First-Timers

Characteristics	Low & Low (416) %	High & Low (364) %	Low & High (239) %	High & High (255) %
Educational Objective				
Transfer	12.50	22.80	29.3	51.8
Obtain Job	6.50	8.50	4.6	9.0
Job Advancement	36.10	30.70	20.5	15.4
Explore Career	16.30	25.80	20.0	17.6
Self Improvement	28.60	12.10	25.5	6.2
Prior College Degree				
No Degree	52.60	81.30	60.2	82.30
Some Degree	43.80	18.70	39.8	17.70
Of Which:				
AAS	12.7	14.7	9.5	8.9
Bachelor's	55.3	55.9	67.4	62.2
Master's	26.9	20.6	17.9	24.4
Prof. or Doctorate	5.0	8.7	5.2	4.4
Race				
White	89.20	76.40	82.4	71.7
Minority	10.80	23.60	17.6	28.3
Of Which:				
Asian	24.40	9.30	19.00	41.50
Black	44.40	70.70	42.80	27.70
Hispanic	15.50	12.70	19.00	22.15
Age Group*				
< 21	16.80	20.30	28.00	33.70
21 - 24	14.20	18.60	13.40	12.50
25 - 29	21.90	22.50	19.20	19.60
30 - 44	27.90	31.60	28.00	28.20
45+	19.20	7.40	11.30	5.90
Sex				
Male	43.50	52.20	45.20	44.70
Female	56.20	47.80	54.80	55.30
Full-Time Status+	1.90	5.80	17.20	32.20
First Quarter GPA**				
≥ 2.00	82.12	60.50	86.41	92.00

* at admission
\+ First Quarter
** Excluding those not getting letter grades (A-F) in the course.

As depicted by Table 3, students in Group Low & Low came to NVCC mostly for job advancement or self-improvement. There were more students 45 years of age and older than in any other groups under scrutiny. Furthermore, this group had the highest percent of students holding a college degree prior to NVCC enrollment of all the groups (44%). These may explain why almost 65 percent of them came to NVCC not to prepare for transfer or employment.

They had intended to enroll one quarter at NVCC probably with a specific objective in mind, to fulfill the requirements for job advancement or to take courses for self-enrichment. They generally achieved good academic performance for NVCC attendance and left the College at the end of the quarter.

In the future, if the requirements for their job advancement changed or if the College course offerings interested them, they might return to the College. It can be concluded that they achieved their educational objectives and therefore should not be considered attrition.

Almost all students in Group High & Low had not held a college degree prior to NVCC enrollment. Many came to the College for job advancement or to explore a career. This group had more younger students than Group Low & Low, and it had the highest percent of males of all the four groups under discussion. The fact that 40 percent of the students in this group achieved less than a 2.00 GPA might explain why they stopped out after having enrolled only one quarter at the College.

Perhaps they over-estimated the length of NVCC attendance required to achieve their educational objective. It might have taken them only one quarter to fulfill the requirements for their job advancement. Perhaps they came to explore a career and thought they would stay at the College nine quarters or more to meet this goal and did not do well and stopped out.

One may predict that the probability of this group coming back to the College is low since they have not enrolled for any of the last four quarters. Thus, their stopout behavior might be dropout behavior. In order to reduce the attrition rate for this group, NVCC must examine ways to maximize student success by ensuring that students are academically prepared for the courses in which they enroll in their <u>first</u> quarter. This has serious implications for student advising/counseling, placement testing and early alert systems.

Nearly one-third of Group Low & High students came to NVCC to prepare for transfer; one-fourth for self-improvement. This dichotomy may be explained by the fact that this group had 41 percent of students under 25 years of age and the second highest percent of students 45 and older. It is interesting to note that 40 percent of them held a college degree prior to NVCC enrollment, the majority (67%) being a bachelor's degree.

One possible explanation for their being voluntarily retained longer than planned is that they performed well academically and found the college experience satisfactory. For those with self-improvement goal, college course offerings perhaps continued to be interesting and fascinating. For those with transfer goal, perhaps they realized that it would take them longer to meet their goal and that the College provided them with well-grounded preparation for their transfer. Obviously, they are "satisfied customers" who are being retained beyond their expectancy.

As would be expected, more than half of the students in Group High & High came to NVCC to prepare for transfer. Almost all of them had held no college degree prior to NVCC experience. This group had the highest percent of minority students, Asians being the largest minority. The group also had the largest number of younger students and full-time students with the highest percent of students achieving good academic performance of all the groups under scrutiny.

It is interesting to note the contrasts between the High & High and High & Low groups. Both had long-term objectives, High & High objective being transfer and High & Low objective being job advancement and career exploration. The High & High is apparently much younger with 34 percent of the group under 21 years of age and includes many more full-time students. Whereas the High & High Group had high academic performance with 92 percent achieving a GPA of 2.00 or above, only 60 percent of the High & Low Group achieved that level of academic performance. These factors apparently contributed to the different retention rates for the groups.

CONCLUSIONS AND LIMITATIONS

This study is one of the few attempting to link student retention/attrition with student educational objectives and length of time expected to achieve the objectives. NVCC studies of student retention focusing on Fall quarter first-timers found that about 60 percent of first-timers were enrolled only from one to three quarters. Student enrollment at community colleges is of intermittent nature with students dropping in and stopping out. Therefore, student retention at community colleges needs to be examined in conjunction with student educational objectives. Students might stop out of college without achieving their educational objectives. If this stopout period is long enough, for example, for three or four consecutive quarters, their stopout behavior might become dropout and they become attrition.

One half (1310) of all first-time students in Winter 1985 enrolled only during that quarter and not since (through Winter 1986). However nearly a third of this group (416) only intended to enroll for one quarter and are therefore not considered

attrition in this study. This still leaves almost 900 students enrolled for only one quarter including 364 who intended to enroll for 9 or more quarters. Clearly attrition is neither good for the student, resulting in a failure to achieve one's educational objectives, nor for NVCC, resulting in an enrollment decline.

The study examined in depth the four groups of students who seemed to have established a retention pattern over the five quarters, Winter 1985 - Winter 1986. It should be noted that as the students are followed-up in quarters subsequent to Winter 1986, their retention patterns might change. For example, students in the Low & Low Group might return in the future to the College for further training. So might students in the High & Low Group, although the likelihood for this group to do so is not too high: too long a stopout period is likely to result in dropout behavior. Students in the other two groups, the Low & High and the High & High might also alter their retention patterns. In other words, the term "group" in this study is used in its largest connotation to denote the "sameness" of the retention pattern which students show at the time of the study.

Each grouping, however, shows some individual characteristics which contrast the groups. The High & Low Group, for example, had long-term educational objectives; nevertheless, these long-term objectives are not for transfer but for job advancement and career exploration. This group also had the lowest success rate. These students might have come to NVCC thinking that it would take them sometime to achieve their educational objectives. When they did not do well academically, they stopped out and did not return to the College. This bears implications for a need for more course/academic advising so that the students fully understand what it takes to successfully complete a college course. As Theophilides, Terenzini et.al., (1984) found, retention is closely related to the level of student-faculty contacts for advice for potential careers. It also points out a need for an alert system to warn students who have academic difficulty so that plans can be made for help to reach the students prior to their voluntary stopout. It also implies that it might be necessary to impose placement tests to help place students in an appropriate course level to increase student success rate. And this study suggests that these intervention activities must occur during a student's first quarter of attendance or else it might be too late. Group Low & High, for example, is a case of "consumer satisfiers." They anticipated a certain number of quarters of enrollment to achieve their educational objectives but were enrolled for more quarters than planned and performed well. Some of them might have underestimated the length of enrollment required to achieve their objectives. Nevertheless, it is very possible that the majority had found the College experience very awarding and satisfying and therefore continued to enroll beyond their expected length of stay.

As has been found in NVCC studies of Fall first-timers' enrollment patterns, results from this study once again point out that academic performance in the first quarter of attendance predicts enrollment in subsequent quarters. Getzlaf et.al., (1984), in their study of voluntary undergraduate attrition, found that dropout behavior closely correlates with lower academic ability, among other things.

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